

Thursday, June 25, 2015 2:26:54 PM

134061

Page 1

N900040100

Setup Start *NS1*

Stop *NS2*

Start Date: 6/25/2015 **Start Qty:** 1.00 ***1***

Cust Item ID:

Required Date: 6/25/2015 **Req'd Qty:** 1.00 ***1***

Customer:

Reference:

Approvals: Process Plan: MLJ Date: JUN 25 2015 Tooling: Date:

Run Start *NR1*

QC: _____ Date: _____ SPC (Y/N): _____ Date: _____

Stop ***NR2***

Sequence ID/ Work Center ID	Operation Description	Set Up/ Run Hours	Tool ID	Tool #	Plan Code	Accept Qty	Reject Qty	Reject Number	Insp. Stamp
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Draw Nbr	Revision Nbr
D3676	Rev D

100

100

Thermoform

Thermoforming Machine

HAND FINISHING THERMOFORMING

0.00

Memo

0.00

Set up Machine as per folio FTA 018 and D3676 program

DAS

07

9-69

15/06/30

110

110

Thermoform

Thermoforming Machine

HAND FINISHING THERMOFORMING

0.00

Memo

0.00

Cut Blanks to 38" by 52"

DAS

07

9-89

15/06/30

Work Order ID 134061

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Page 2

Item ID: D3676-1

Accept

N900040100Setup Start ***NS1***

Revision ID:

Item Name: Bubble Window, LH

Stop ***NS2***

Start Date: 6/25/2015 Start Qty: 1.00

1

Cust Item ID:

Required Date: 6/25/2015 Req'd Qty: 1.00

1

Customer:

Reference:

Approvals: Process Plan: _____ Date: _____ Tooling: _____ Date: _____

QC: _____ Date: _____ SPC (Y/N): _____ Date: _____

Run Start ***NR1***Stop ***NR2***

Sequence ID/ Work Center ID	Operation Description	Set Up/ Run Hours	Tool ID	Tool #	Plan Code	Accept Qty	Reject Qty	Reject Number	Insp. Stamp
--------------------------------	--------------------------	----------------------	---------	--------	--------------	---------------	---------------	------------------	----------------

120

0.00

120

THERMOFORMING MACHINE

Thermoform

Memo

0.02

Thermoforming Machine

Thermoform as per Dwg. D3676 and Folio FTA 018

Dwg. Rev. DFolio Rev. E

- 1- Visually inspect for proper formation of each part
- 2- Check depth of bubble

x1 x1 15/06/30
PTO →
LAST PAGE

150

0.00

150

HAND FINISHING THERMOFORMING

Thermoform

Memo

0.03

Thermoforming Machine

- 1) Trim off excess flange material
- 2) Buff out any light scratches or blemishes
- 3) Etch part number and batch number

x1 15/07/02

DAS
07
9-89

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N900040100

Setup Start *NS1*

Stop *NS2*

Start Date: 6/25/2015 **Start Qty:** 1.00 ***1***

Cust Item ID:

Required Date: 6/25/2015 **Req'd Qty:** 1.00 ***1***

Customer:

Reference:

Run Start *NR1*

Approvals: **Process Plan:** **Date:** **Tooling:** **Date:**

Stop ***NR2***

QC: _____ Date: _____ SPC (Y/N): _____ Date: _____

**Insp.
Stamp**

160

OC

Memo

0.00

Quality Control

Empire

07

9-59

25/02/09

170

0.00

170

OC

Memo

0.00

Quality Control

1) Visually inspect for clarity, and proper formation.

DA

3

9.

20-07-08

180

Identify as per dwg & Stock Location: PK

0.00

180

Packaging

Memo

0.00

Packaging

~~JUL 10 2015~~

9-8-89 6 1DA

Work Order ID 134061

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134061

Page 4

Item ID: D3676-1 Accept ***N900040100*** Setup Start ***NS1***
Revision ID: Stop ***NS2***
Item Name: Bubble Window, LH
Start Date: 6/25/2015 Start Qty: 1.00 ***1*** Cust Item ID:
Required Date: 6/25/2015 Req'd Qty: 1.00 ***1*** Customer:
Reference:

Approvals: Process Plan: _____ Date: _____ Tooling: _____ Date: _____ Run Start ***NR1***
QC: _____ Date: _____ SPC (Y/N): _____ Date: _____ Stop ***NR2***

Sequence ID/ Work Center ID	Operation Description	Set Up/ Run Hours	Tool ID	Tool #	Plan Code	Accept Qty	Reject Qty	Reject Number	Insp. Stamp
190	QC21- Final Inspection - Work Order Release	0.00							
190									
QC	Memo	0.00							
Quality Control									

MLC JUL 1 0 2015

MLC JUL 1 0 2015

Picklist Print

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Page 1

Work Order ID: 134061

134061

Parent Item: D3676-1

D3676-1

Parent Item Name: Bubble Window, LH

Start Date: 6/25/2015

Required Date: 6/25/2015

Start Qty: 1.00

Required Qty: 1.00

Comments: IPP Rev A New Product 01/24/2008 DL Verified:JLM
IPP Rev B Change Mat. to .236"" 08/29/2008 DL IPP Rev C
Added D3676-2 12/03/01 DL IPP Rev. D Udate dwg
add 20" dim to apex. 13/012/05

Component Item ID/ Item Name	Replacement Item ID	Mfg/ Purch	Bin Item	Primary Location	Last Location	Route Seq ID	Unit of Measure	Qty on Hand	Qty per Kit	Total Qty	Qty Issued	Date Issued	Status
MACRLICS.236		Purchased		No		110	sf	242.0000	14	25			

MACRI ICS 236

Plexiglass G 60" x 96"x .236"

Location	Loc Qty	Loc Code
therm	242	
M129447	14	
M131524	228	

50 sy H.

DL
15/07/02

DART AEROSPACE LTD		Work Order:	134061
Description:		Part Number:	D3676-1
Inspection Dwg: D3676 Rev: D		Page 1 of 1	

FIRST ARTICLE INSPECTION CHECKLIST

THERMOFORMING SECTION

Description	Accept	Reject	Method of Inspection	Comments
Inside Radii less than <u>N/A</u> "				
Shape Definition	✓			
Texture Retention	✓			
Material imperfections such as bumps, cracks, voids, scratching	✓			

DAS

Measured by: 07
9-89

Date: 15/06/30

TRIMMING SECTION

Drawing Dimension	Tolerance	Actual Dimension	Accept	Reject	Method of Inspection	Comments
29.1"	$\pm .100$	29.1"	✓			
46.0"	$\pm .100$	46.1"	✓			
0.090"	MIN	0.111"	✓			
0.070"	MIN	0.102"	✓			
0.050"	MIN	0.063"	✓			
20.0"	MAX	22.0"		✓		OK as is.
15.5" - 17.5"	MIN - MAX	17.0"	✓			

DAS

Measured by: 07
9-89

Date: 15/07/09

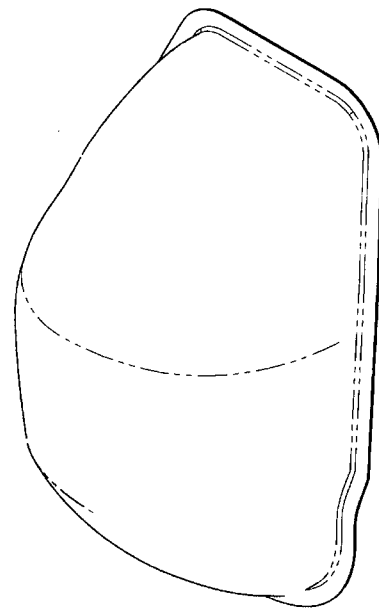
Audited by: 38
9-89

Date: 15-07-09

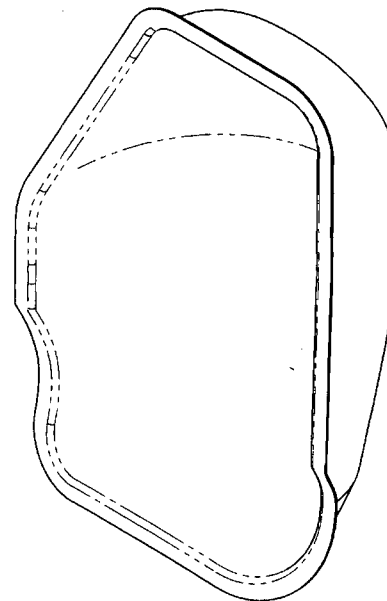
Preliminary Approval: _____

Date: _____

Rev	Date	Change	Revised by	Approved
B	10.04.14	Added preliminary approval	KJ	



D3676-1 FULL HEIGHT BUBBLE WINDOW (LH)

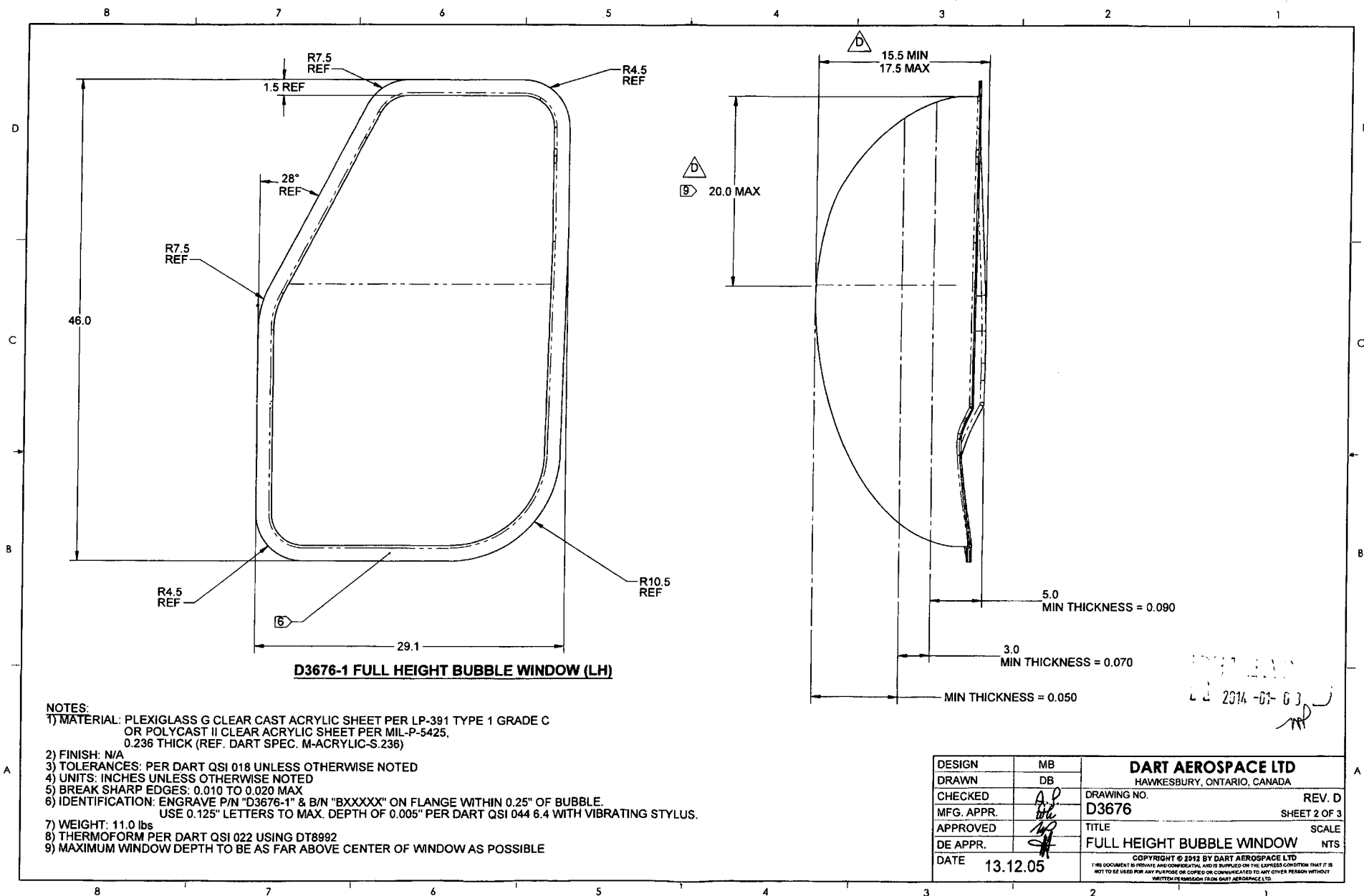


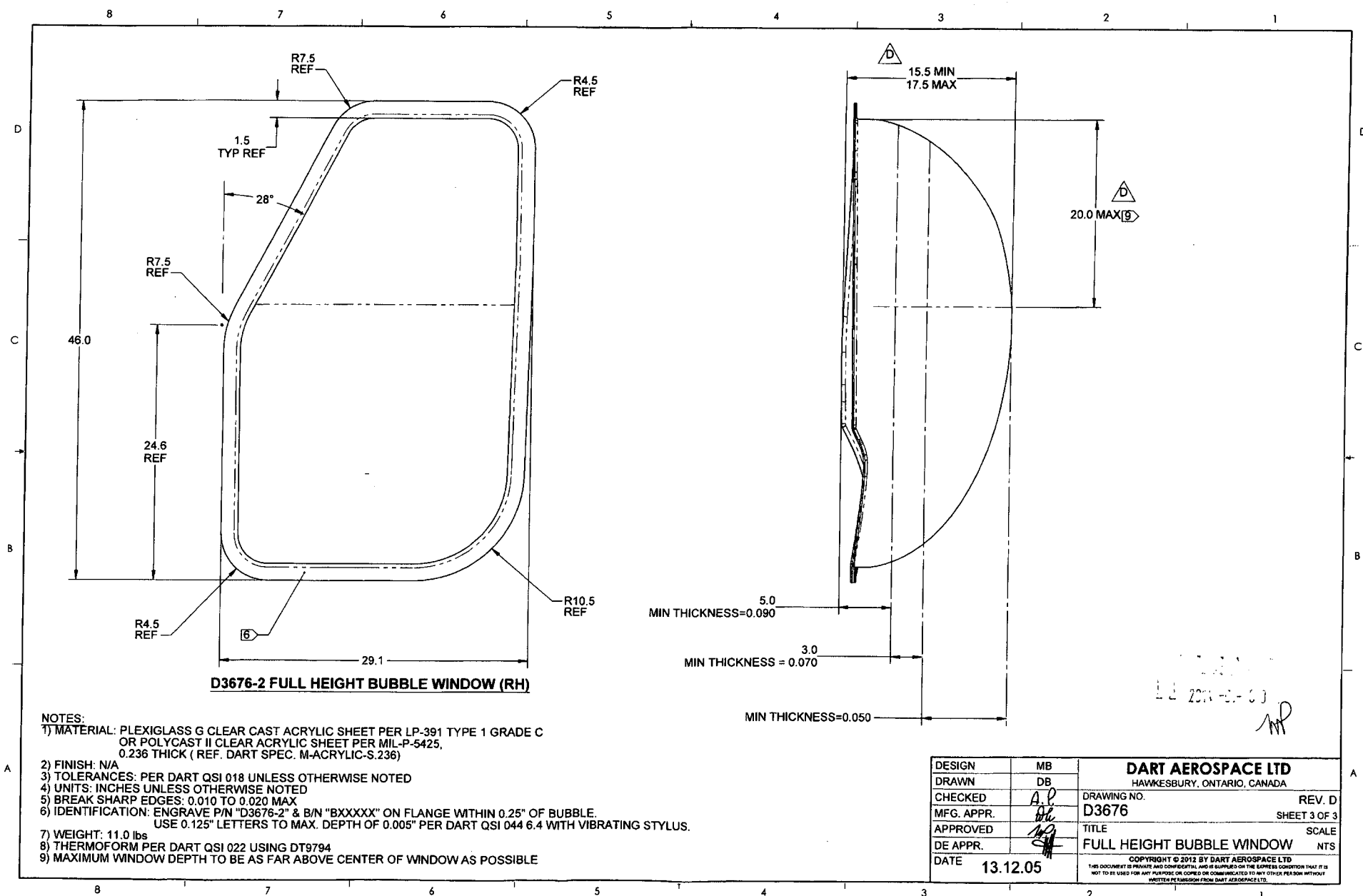
D3676-2 FULL HEIGHT BUBBLE WINDOW (RH)

NO. 134061 MLJ
15-06-25

13.12.05
15-06-03 D
MB

D	UPDATE TOLERANCE ON DEPTH, ADD 20.0 MAX. VERTICAL DIMENSION (SH 2 & 3), NEW VIEW LAYOUTS ON SH 1 & 2	DB	13.12.05
C	ADDED D3676-2 FULL HEIGHT BUBBLE WINDOW (RH). REMOVED NOTES ON SHEET 1, REFORMAT NOTES 6 & 8 ON SHEET 2. D3676-1 WAS "412 BUBBLE WINDOW" NOW "FULL HEIGHT BUBBLE WINDOW (LH)".	AP	12.03.01
B	REVISED TOLERANCE ON MINIMUM THICKNESSES (ZN A8/B8-2), REASON: PRODUCTION FACILITY.	MB	08.10.27
A	NEW ISSUE	MB	08.02.29
REV.	DESCRIPTION	BY	DATE
DESIGN	MB	DART AEROSPACE LTD HAWKESBURY, ONTARIO, CANADA	
DRAWN	DB		
CHECKED	AP	DRAWING NO.	REV. D
MFG. APPR.	MB	D3676	SHEET 1 OF 3
APPROVED	MB	TITLE	SCALE
DE APPR.	MB	FULL HEIGHT BUBBLE WINDOW	NTS
DATE	13.12.05	COPYRIGHT © 2012 BY DART AEROSPACE LTD THIS DOCUMENT IS PRIVATE AND CONFIDENTIAL AND IS SUPPLIED ON THE EXPRESS CONDITION THAT IT IS NOT TO BE USED FOR ANY PURPOSE OR COPIED OR COMMUNICATED TO ANY OTHER PERSON WITHOUT WRITTEN PERMISSION FROM DART AEROSPACE LTD.	





NCR: Yes / No

WORK ORDER NON-CONFORMANCE / UPDATE

DQA: *[Signature]* Date: 15/07/13QA Closed: *[Signature]* Date: 15/07/13

Work Order: <u>134061</u>	DISPOSITION Rework ☐ Scrap ☒ Use-as-is ☒ Work Order Update ☐	AGAINST DEPARTMENT/PROCESS			
Part No. <u>D 3676</u>		Skid-tube ☐	Crosstube ☐	Water Jet ☐	Engineering ☐
NCR No. <u>(2)</u>		Machining ☐	Small Fab ☐	Prod. Eng. Coord. ☐	Quality ☐
		Thermoforming ☒	Finishing ☐	Rec/Store/Packaging ☐	Other ☐
		Large Fab ☐	Composite ☐	Supplier ☐	

Root Cause	Date	Step	Qty	Description of work order update or Non-conformance	Initial Chief Eng	Action Description	Sign & Date	Verification	QC Inspector
Doc/Data	15/06/30	110	1	PART DEFORMED. 15-5190 W/SCRAP RC: EQUIPMENT	DAS 12 9-89 15/7/9	Change burst pipe SCRAP = Replace 1 part M 131524	DL 15/06/30	DAS 38 9-89 25-07-09	DAS 9 9-89 15-07-09
Equip/Tooling	15/06/30	110	1	APEX NOT WITHIN 30° F100. Apex @ 22". RC: PROCESS At 20" depth is 16.75"		Use as is	DL 15/07/02		
Operator									
Material									
Setup									
Other									
Process									
Supplier									
Training									
Unapproved									

15-5191-DUSE FAULT CATEGORY

Landing Gear ☐ Bending ☐ Centre Not Concentric to O/S ☐ Cracks ☐ Crushed/Crimped ☐ Cuffs ☐ Heat Treat ☐ Inspection Strip in Tube ☐ Ripples in Bend ☐ Torque Waves in Extrusion ☐ Turning Sequence ☐ Wave/Twist in Tube		General <i>4513</i> ☐ Bend ☐ BOM/Route ☐ Broken/Damaged ☐ Burrs ☐ Contamination ☐ Countersink ☐ Cut Too Short ☐ Drill Holes ☐ Drawing ☐ Finish ☐ Folio		☐ Grain ☐ Hardware ☐ Inspection Incomplete ☐ Instructions Incomplete/Unclear ☐ Maintenance ☐ Mislabeled ☐ Misread ☐ Offset ☐ Out of Calibration ☐ Out of Sequence ☐ Outside Dimensions		☐ Ovalized ☐ Over/Under tolerance ☐ Part Incorrect ☐ Part Lost/Missing ☐ Part Moved ☐ Positioned Wrong ☐ Power Loss/Surge		☐ Pressure/Forced ☐ Temperature/Cure ☐ Weld ☐ Wrong Stock Pulled ☒ Other	
(1) Machine malfunction (2)									